CHENG-YI
ELECTRONIC

SP1020C thru SP10200C

PB FREE PRODUCT

SCHOTTKY BARRIER RECTIFIER

10.0AMP SCHOTTKY BARRIER RECTIFIERS

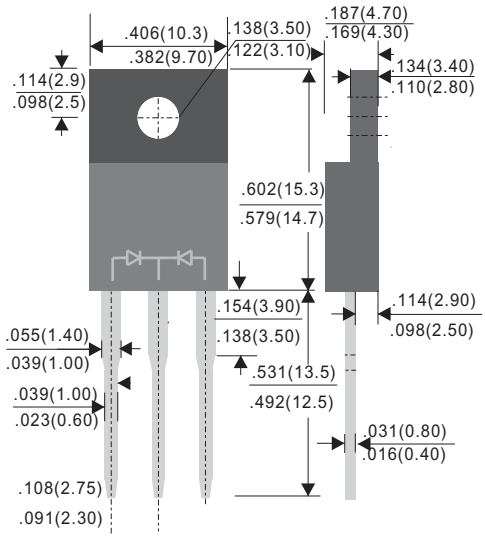
ITO-220 PACKAGE

FEATURES

* Low switching noise
* Low forward voltage drop
* High current capability
* High reliability
* High surge capability
* Pb free plating 99% Sn above

MECHANICAL DATA

* Case: ITO-220 Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 1.8 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive of inductive load.
For capacitive load, derate current by 20%

RATINGS	SYMBOL	SP1020C	SP1030C	SP1040C	SP1060C	SP1080C	SP10100C	SP10150C	SP10200C	UNIT
Marking Code		SP1020C	SP1030C	SP1040C	SP1060C	SP1080C	SP10100C	SP10150C	SP10200C	
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	60	80	100	150	200	Volts
Maximum RMS Voltage	VRMS	14	21	28	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at TL = 90℃	IO	10.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150								Amps
Typical Thermal Resistance (Note 1)	RΘJA	3.0				3.5				℃/W
Typical Junction Capacitance (Note 2)	CJ	700			500	280				PF
Operating Temperature Range	TJ	-65 to +125								℃
Storage Temperature Range	TSTG	-65 to +150								℃

CHARACTERISTICS		SYMBOL	SP1020C	SP1030C	SP1040C	SP1060C	SP1080C	SP10100C	SP10150C	SP10200C	UNIT
Maximum Forward Voltage at 5.0A DC, pre leg(Note 3)		VF	0.55			0.75	0.82		0.92		Volts
Maximum Average Reverse Current at	@TA=25℃	IR	0.5								mAmps
Rated DC Blocking Voltage	@TA=100℃		10				6				

NOTES :1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5” (12.7mm) Lead Length.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Measured at Pulse Width 300μs, Duty Cycle 2%.

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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

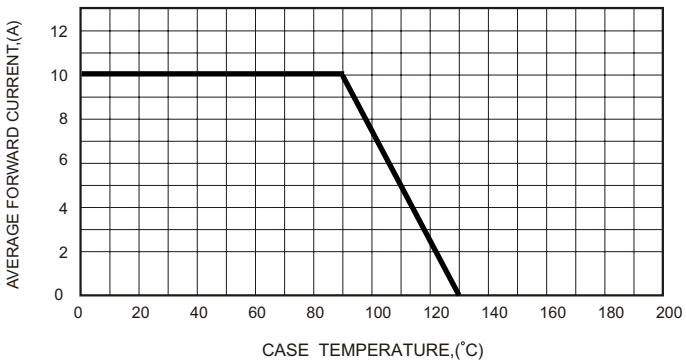

FIG.2-TYPICAL FORWARD CHARACTERISTICS

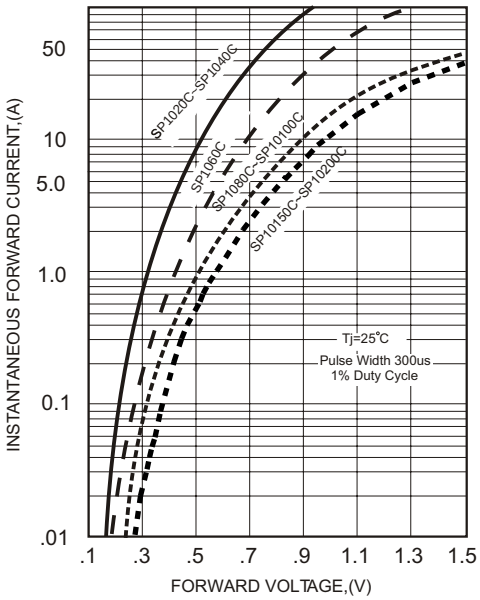

FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

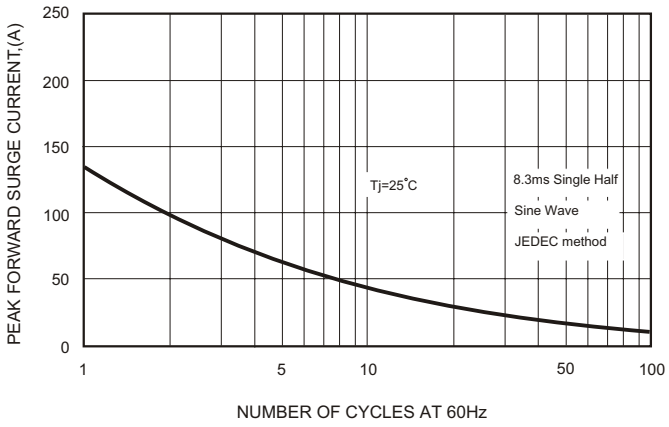

FIG.4-TYPICAL JUNCTION CAPACITANCE

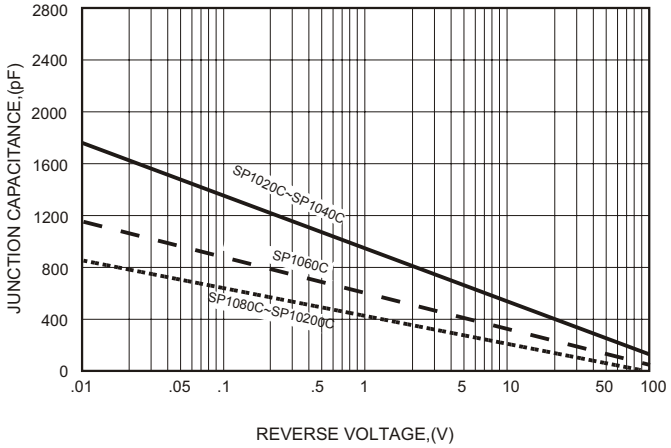

FIG.5 - TYPICAL REVERSE CHARACTERISTICS